REMARKS/ARGUMENTS

Reexamination and reconsideration of the rejections of claim 11 is earnestly requested. While response to a final rejection may normally be an appeal or an RCE as an example, in this case the rejections are based on new cites that again do not disclose or anticipate the exhaust tube or retro-tube of the instant application. The new cites also do not make the invention of the instant application obvious.

Claim 11 has been rejected under 35 USC 102 (b) as being anticipated by Eichelberg. Among other remarks the examiner has stated that there is an intake port in direct communication between said combustion chamber and environmental air at atmospheric pressure. The Eichelberg disclosure does address the possibility of eliminating the necessity for a blower in a scavenging two-stroke engine. It does not indicate that it uses ambient environmental air at atmospheric pressure.

The examiner also remarks that the Eichelberg art discloses a retro-tube 15 of approximately constant diameter and having a volume approximately equal to a swept volume of a piston 12 movement in cylinder 11. There is no disclosure in the specification concerning the diameter or volume of outlet pipe 13 as disclosed. If the outlet pipe 15 characteristics were important to the Eichelberg art, the structure certainly could have been described as was the inlet pipe. For these reasons it is believed that Eichelberg does not disclose, anticipate or make obvious the instant application.

Claim 11 has also been rejected under 35 USC 102 (b) as being anticipated by Draminsky. Among other remarks the examiner has stated that there is an intake port (R) in direct communication between said combustion chamber and environmental air at atmospheric pressure (col. 1, lines 3 – 5; col. 3, lines 26 – 29). Again as in Eichelberg, the attempt to eliminate the necessity for a blower is disclosed for a scavenging two-stroke engine. The disclosure does not indicate that it uses ambient environmental air at atmospheric pressure.

The examiner also remarks that Draminsky discloses a retro-tube (F1, F2) attached to said exhaust port wherein said retro-tube is of approximately constant diameter and having a volume approximately equal to a swept volume of said piston movement in said cylinder. The Draminsky teaching is for an exhaust pipe having an expanding diameter from the exhaust port to the pipe opening, not an approximately constant diameter (See disclosure regarding F2). There is no disclosure of exhaust pipe volume relative to piston movement. Rather the disclosure teaches use of wave theory relative to exhaust pressure waves and suction waves to calculate the expanding (not constant) shape of exhaust pipes. Draminsky actual teaches away from the instant application invention. For these reasons it is believed that Draminsky does not disclose, anticipate or make obvious the instant application.

The instant application outlet or exhaust tube has a specific volume that provides a strong draw for the scavenging period. It may cause pumping of several swept volumes of air through a cylinder per cycle. It may provide scavenging air, combustion air, cooling air (for internal cooling) and supercharge air. Tests with a prototype engine have shown: a high RPM for a 300cc engine of up to 7000 rpm; low mean exhaust temperatures (less than 200 degrees Fahrenheit); and low cylinder head temperature of approximately 475 degrees Fahrenheit without use of external cooling.

Both the Draminsky and Eichelberg engines require use of non-return valves at a minimum on the intake.

The instant application engine prototype tests appear to: improve reliability by reducing thermal distortion; increase cylinder air charge purity for improved power; decrease cost for a two-stroke engine; increase power to weight ratio by reduced need for cooling fins, fans, radiators, water pumps, water jackets, etc; allow design of clean efficient fuel systems, for example, carburetors; and allow use of pressure fed journal bearings.

Although many incremental improvements have been proposed for two-stroke engines, the instant application structure is a simple, effective improvement to engine performance and a less complex, basic engine that in prototype form has provided surprising performance results.

Claim 14 has been allowed. Claims 12 and 13 have been found allowable and claim 11 should be allowed.

It is believed with the clarifying remarks that the uniqueness of the instant invention is not disclosed in the cited art.

Accordingly it is believed that the rejections under 35 USC Section 102(b) have been overcome by amending of the claims and the remarks, and withdrawal thereof is respectfully requested.

In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration of the cause for rejections and objections is requested. Allowance of claims 11 through 14 is earnestly solicited.

If the reasons for rejection can not be reconsidered and discussed because of rules regarding final actions, please provide information regarding the Pre-Appeal Brief Conference Pilot Program.

No additional fee for claims is seen to be required.

If you have any questions do not hesitate to contact me.

Very truly yours,

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DWB/ab

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In regards to application of:

Serial Number:	10/758,839
Applicant:	James W. Lacey
Filing Date:	01-16-2004
Title:	Engine Exhaust System
TC/AU:	3747
Examiner:	Hyder Ali

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

EXPRESS MAIL CERTIFICATE MAILING UNDER 37 CFR § 1.10

"Express Mail" label number: EM 050563137 US

Date of Deposit: February 27, 2007

I hereby certify that the following attached correspondence comprising:

5 Pages of response

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR § 1.10 on the date indicated above and is addressed to:

Mail Stop Non-Fee Amendment
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P.O. Box 1450
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Date: 2/27/07

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